

We claim:

1. A machine-readable medium having instructions stored thereon for execution by a processor to implement a computer program providing a common text framework through which applications and handlers for input devices can interact, comprising:

5 a text store interface to permit an application having a document of primarily text to expose the document as an abstraction; and,

a text input processor interface to permit a handler for an input device to access the abstraction of the document and to insert additional text into the document.

2. The medium of claim 1, wherein the text store interface comprises:

10 a text stream interface in which the abstraction of the document appears as an array, a position within the document represented as an offset from a beginning of the array; and,

a dynamic text interface in which the abstraction of the document is such that a position within the document represented as a floating anchor to a node,

15 such that the application selects at least one of the text stream interface and the dynamic text interface by which to expose the document as the abstraction.

3. The medium of claim 1, wherein the text input processor interface comprises a range object in which a range within the document is specified as two positions within the abstraction of the document, such that the handler inserts the additional text into the document and accesses the abstraction of the document at the range specified by the range object.

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4. The medium of claim 3, wherein insertion is accomplished via a first method of the text input processor interface, and the access is accomplished via a second method of the text input processor interface.

5. The medium of claim 3, wherein the text input processor interface further permits the
5 handler for the input device to attach a property to the document at the range specified by the range object.

6. The medium of claim 5, wherein attachment is accomplished via a method of the text input processor interface.

7. A computerized system comprising:
10 a plurality of applications, each application having a document of primarily text;
a plurality of input device handlers, each handler having a corresponding input device; and,
a framework designed to permit each application to expose the document as an abstraction, and to permit each handler to access the abstraction of the document of each
15 application and to insert additional text into the document of each application.

8. The system of claim 7, wherein the framework comprises:
a text store interface designed to permit each application to expose the document as an abstraction; and,
a text input processor interface designed to permit each handler to access the

abstraction of the document of each application and to insert text into the document of each application.

9. The system of claim 8, wherein the text store interface comprises:

5 a text stream interface in which the abstraction of the document of an application appears as an array, a position within the document represented as an offset from a beginning of the array; and,

a dynamic text interface in which the abstraction of the document is such that a position within the document represented as a floating anchor to a node,

10 such that each application selects at least one of the text stream interface and the dynamic text interface by which to expose the document as the abstraction.

10. The system of claim 8, wherein the text input processor interface comprises a range object in which a range within the document of an application is specified as two positions within the abstraction of the document, such that the handler inserts the additional text into the document and accesses the abstraction of the document at the
15 range specified by the range object.

11. The system of claim 10, wherein insertion is accomplished via a first method of the text input processor interface, and the access is accomplished via a second method of the text input processor interface.

12. The system of claim 10, wherein the text input processor interface is further designed to permit the handler for an input device to attach a property to the document of an application at the range specified by the range object.

13. The medium of claim 12, wherein attachment is accomplished via a method of the text input processor interface.

14. A machine-readable medium having instructions stored thereon for execution by a processor to implement a computer program providing a common text framework through which applications and handlers for input devices can interact, comprising:

a text store interface to permit an application having a document of primarily text to expose the document as an abstraction, the text store interface comprising:

a text stream interface in which the abstraction of the document appears as an array, a position within the document represented as an offset from a beginning of the array; and,

a dynamic text interface in which the abstraction of the document is such that a position within the document represented as a floating anchor to a node,

such that the application selects at least one of the text stream interface and the dynamic text interface by which to expose the document as the abstraction.

15. The medium of claim 14, wherein the framework further comprises a text input processor interface to permit a handler for an input device to access the abstraction of the document and to insert additional text into the document.

16. The medium of claim 15, wherein the text input processor interface comprises a range object in which a range within the document is specified as two positions within the abstraction of the document, such that the handler inserts the additional text into the document and accesses the abstraction of the document at the range specified by the range object.

17. The medium of claim 16, wherein insertion is accomplished via a first method of the text input processor interface, and the access is accomplished via a second method of the text input processor interface.

18. The medium of claim 16, wherein the text input processor interface further permits the handler for the input device to attach a property to the document at the range specified by the range object.

19. The medium of claim 18, wherein attachment is accomplished via a method of the text input processor interface.

20. A machine-readable medium having instructions stored thereon for execution by a processor to implement a computer program providing a common text framework through which applications and handlers for input devices can interact, comprising:

a text input processor interface to permit a handler for an input device to access an abstraction of a document of mostly text of an application and to insert additional text into the document, comprising:

a range object in which a range within the document is specified as two positions

within the abstraction of the document, such that the handler inserts the additional text into the document and accesses the abstraction of the document at the range specified by the range object;

- a first method by which insertion is accomplished;
- 5 a second method by which access is accomplished; and,
- a third method by which the handler is able to attach a property to the document at the range specified by the range object.

21. The medium of claim 20, wherein the framework further comprises a text store interface to permit the application having the document of primarily text to expose the document as the abstraction.

22. The medium of claim 21, wherein the text store interface comprises:

- a text stream interface in which the abstraction of the document appears as an array,
- a position within the document represented as an offset from a beginning of the array;
- and,
- 15 a dynamic text interface in which the abstraction of the document is such that a position within the document represented as a floating anchor to a node,
- such that the application selects at least one of the text stream interface and the dynamic text interface by which to expose the document as the abstraction.